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**Department of Energy**

**ROCKY FLATS PROJECT OFFICE  
12101 AIRPORT WAY, UNIT A  
BROOMFIELD, COLORADO 80021-2583**

**SEP 29 2005**

05-DOE-00585

[illegible]

**Mr. Carl Spreng**  
**Rocky Flats Cleanup Agreement Project Coordinator**  
**Colorado Department of Public Health and Environment**  
**4300 Cherry Creek Drive South**  
**Denver, Colorado 80246-1530**

Dear Mr. Spreng:

Please find enclosed the response to comments and additional information requested by Mr. David Kruchek, Colorado Department of Public Health and Environment, for the 444 Closure Project, Final Decommissioning Closeout Report.

Questions may be directed to Rich Schassburger, Rocky Flats Project Office, at (303) 966-4888.

Sincerely,

John J. Rampe, Director  
RFPO Closure Project Management

**Enclosure**

cc w/o Encl.:

S. Nesta, K-H, RISS Env

**J. Heber, K-H RISS D&D**

**- K. Wiemelt, K-H RISS D&D**

**Reviewed for Addressee  
Corres. Control RFP**

9/29/05

Date \_\_\_\_\_ By \_\_\_\_\_

Ref. Ltr. #

05-RF-00882

**DOE ORDER #**

5400.1

cc w/Encl.:

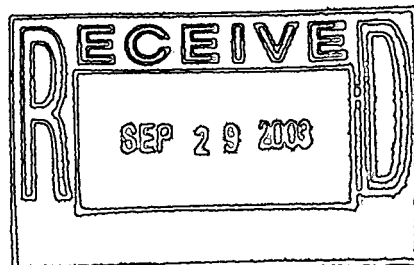
D. Kruchek, CDPHE

M. Aguilar, USEPA

D. Abelson, RFCLOG

**5. Korkia, RFCAB**

## Administrative Record

**ADMIN RECORD**

**B444-A-000132**



September 22, 2005

05-RF-00882

Mr. Richard Schassburger  
Headquarters Cadre Project Management  
DOE, RFPO

**TRANSMITTAL OF RESPONSE TO COLORADO DEPARTMENT OF PUBLIC  
HEALTH AND ENVIRONMENT (CDPHE) COMMENTS ON DECOMMISSIONING  
CLOSEOUT REPORT FOR THE 444 CLOSURE PROJECT - DWF-100-05**

Enclosed are the responses to CDPHE comments on the Final Decommissioning  
Closeout Report for the 444 Closure Project. Also attached are five color copies of  
revised drawings to accompany copied reports.

Transmittal to the CDPHE and the Environmental Protection Agency, in accordance  
with the Rocky Flats Clean-Up Agreement, is requested. Also, please submit a  
color copy of the attached drawing.

If you have any questions please Steve Nesta at extension 6386.

*J.E. Hill for D.W. Ferrera*

Dennis W. Ferrera  
Vice President and Project Manager  
Remediation, Industrial D&D, and Site Services

SMN/plh

Enclosure:  
As Stated

Original and 1 cc - Richard J. Schassburger

cc:  
John Rampe, DOE-RFPO

## SUMMARY OF B444 CLOSEOUT REPORT RESPONSE TO COMMENTS TO CDPHE

- 1) General - Please clarify the facilities included in this B444 Cluster Closeout report. Are Buildings 450, 451, 454, and 455 included? How about B453, 457, 427, 449, etc? Other out buildings included? Provide specific discussions in all appropriate sections of this document to include all of the buildings included in this Cluster.

### RESPONSE:

This closeout report supports the final closure of B444, B445, B447, B448, B450 B451, and B455. It appears that all the facilities with the exception of B455 have been discussed. B455 was the two-stage filter plenum located east of B444. B455 was removed in November 2003 as agreed to in a contact record (Article 47). Additionally, the following buildings were part of the original 444 Project Cluster but were closed as Type 1 facilities under their own report titles: B454 (4/26/05), B453 (8/21/03), B457 (4/26/05), B427 (7/15/03), and B449 (7/15/03).

- 2) General - Please include appropriate discussions, not just references to CRs or other decision documents. Also include reference to the ER Closeout Report for this area.

### RESPONSE:

An ER closeout report was not required for this area. However, a Data Summary Report was completed for IHSS 400-3 Group in December 2003.

- 3) Section III - Please expand this discussion to actually discuss the decontamination and demolition sequence and activities for this Cluster. Such as removing B447, 448, 451, areas of B444, 450, 449, etc.

### RESPONSE:

The demolition of the B444 complex began, in general, with the exterior facilities such as 449, 449A, S449, 449C, 427, 427A, and 454. Demolition continued with buildings 445, 447, 448 and 451 and the northwest corner of B444 nominally working north to south toward Room 101 and finally to the B444 basement. Only the B447 & B448 slabs remain and are covered with five feet of fill; all other basements and slabs are removed.

- 4) Section IV.4 - Please check to determine if the contaminated pit in B447 was removed or remains, and modify this discussion if the radiologically contaminated pit remains in B447 slab. (check with Karen Wiemelt)

### RESPONSE:

The B447 contaminated pit was removed and confirmatory soil samples were taken and documented per the attached two contact records (December 20, 2004, and January 3, 2005). The soil samples identified Uranium in excess of the WRW action levels and subsequently these hot spots were removed. Information regarding this sampling is documented in the 2005 HRR.

- 5) Section VII, Rad monitoring - Please provide a statement about the results of the radiological air monitoring. Please provide a map that shows the locations of all monitors for which data is provided, Rad and Beryllium.

### RESPONSE:

As stated in the Site Integrated Monitoring Plan, PM-Rad will be implemented if a project has the potential to release radionuclides in sufficient concentrations to contribute a 0.1 mrem annual dose to the most impacted public receptor. The highest modeled dose for the

## SUMMARY OF B444 CLOSEOUT REPORT RESPONSE TO COMMENTS TO CDPHE

Building 444 demolition project utilizing CAP88-PC was  $2.2\text{E-}06$  mrem/year, which is far below the monitoring threshold of 0.1 mrem/year in the Site Integrated Monitoring Plan.

A map of the air monitors for Be is attached.

- 6) Section VIII.1 - Please check the weight shown (229,137.74 tons) and correct as appropriate.

**RESPONSE:**

The correct weight for the B444 Closure Project is adjusted to 21, 712.66 tons. The volume is 27,890.96 m<sup>3</sup>.

- 7) Section IX - Please modify this discussion as necessary based on the determination of the condition of the B447 slab/pit as discussed above.

**RESPONSE:**

This section is amended for clarification to state that no contaminated structures remain within this cluster area. However, as previously stated the B447 and B448 slabs (not contaminated) remain.

- 8) Section X -

- a) Please modify this discussion as necessary based on the determination of the condition of the B447 slab/pit as discussed above. Also include the structural condition of the remaining slab (holes and areas removed).
- b) Please include a discussion of the removal of the slabs associated with B444 (as separate from the basement) as well as all of the buildings included in this Cluster, including B445, as well as B450, 451, 454, 445, etc
- c) Please include a discussion of the removal of the associated concrete and asphalt adjacent to this area. Was it removed or does it remain.
- d) Please provide a discussion regarding the condition of the remaining OPWLs, levels of contamination, location/depth, length, and condition (plugged/grouted), including the contaminated trenches.
- e) Please discuss the disposition of all associated infrastructure, to include the foundation drains, storm drains, etc. Where were the disconnection/removal points, how (to what extent) were they plugged/grouted, exactly what remains, etc.

**RESPONSE:**

- a) As identified in response #4, the contaminated pit in B447 was removed but the slab for 447 remains along with the 448 slab. Holes were not punched in these slabs, but over 5' of fill cover the remaining pieces.
- b) See response to #3.
- c) All asphalt and concrete was removed.
- d) The main floor slab of Building 447 was not removed because it was not contaminated and was going to be >6 feet below final grade elevation. Approx. 200 feet of OPWL which were under the main floor slab were grout filled following the approved OPWL grouting protocol to the maximum extent possible from three open pipe locations at slab level. The remaining slab/pipe penetrations were previously grout plugged during building demolition. The basement, including OPWL beneath the basement and mezzanine and OPWL which ran above the mezzanine floor, were

## SUMMARY OF B444 CLOSEOUT REPORT RESPONSE TO COMMENTS TO CDPHE

totally removed during building demolition. The contaminated trenches and pits in Building 447 were completely removed.

During demolition of Building 444, approx. 1400 feet of OPWL running above the slab, below the slab, and in and under the basement were completely removed. Approx. 100 feet of OPWL which extended from the north basement foundation wall of Building 444 to the intersection of the P-4 OPWL north of the building was >6 feet below final grade elevation and was completely filled with grout.

- e) The only slabs that remain are for B447 and B448. Storm drains and building foundation drains were cut and capped at the locations shown on the attached map at a depth of greater than four feet below grade. For the final grade the entire area had 165,000 cubic yards of fill placed over it ( included area from 460 to 444).

- 9) Please provide a figure showing all removed and remaining structures, slabs, process waste lines, pits, foundation drains, storm drains, etc.

**RESPONSE:**

See attached drawing of removed/remaining structures.

- 10) Section XI - Please expand this discussion to include the extent and degree of excavation that occurred.

**RESPONSE:**

To the extent possible most lines and slabs were removed, as identified on the map attached. The area was subsequent

- 11) Section XII - Please expand this discussion to actually describe the wastes left in place, not just that they were covered with "a minimum of three feet" of cover. Should discuss the approximate amount of cover placed over the remaining infrastructure as well as the location and condition of all of the remaining infrastructure. Such as the OPWLs, pits, slabs, trenches, lines, etc.

**RESPONSE:**

Previous responses above along with maps address this.

<b>Date/Time:</b>	December 20, 2004/1100	
<b>Site Contact(s):</b>	Annette Primrose	Norma Castaneda
<b>Phone:</b>	303 966-4385	303 966-4226
<b>Regulatory Contact:</b>	David Kruchek	
<b>Phone:</b>	303 692-3328	
<b>Agency:</b>	CDPHE	

## Discussion

**Contact Record Prepared by: Annette Primrose**

M. Aguilar, USEPA  
H. Ainscough, CDPHE  
S. Bell, DOE-RFPO  
J. Berardini, K-H  
B. Birk, DOE-RFPO  
L. Brooks, K-H ESS  
L. Butler, K-H RISS  
G. Carnival, K-H RISS  
N. Castaneda, DOE-RFPO  
C. Deck, K-H Legal  
N. Demos, SSOC  
S. Gunderson, CDPHE  
M. Keating, K-H RISS  
L. Kimmel, USEPA  
D. Kruchek, CDPHE  
J. Legare, DOE-RFPO

D. Mayo, K-H RISS  
J. Mead, K-H ESS  
S. Nesta, K-H RISS  
L. Norland, K-H RISS  
K. North, K-H ESS  
E. Pottorff, CDPHE  
A. Primrose, K-H RISS  
R. Schassburger, DOE-RFPO  
S. Serreze, K-H RISS  
D. Shelton, K-H ESS  
C. Spreng, CDPHE  
S. Surovchak, DOE-RFPO  
J. Walstrom, K-H RISS  
K. Wiemelt, K-H RISS  
C. Zahm, K-H Legal

## K. Maley, K-H RISS

[illegible]

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

---

<b>Date/Time:</b>	January 3, 2005/1330	
<b>Site Contact(s):</b>	Annette Primrose	Norma Castaneda
<b>Phone:</b>	303 966-4385	303 966-4226
<b>Regulatory Contact:</b>	David Kruchek	
<b>Phone:</b>	303 692-3328	
<b>Agency:</b>	CDPHE	

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**Purpose of Contact:** Completion of the B447 Hotspots Remediation

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### Discussion

Uranium exceeded the WRW action levels at one location beneath the B447 slab. After building demolition was complete, this hotspot was removed. Confirmation samples were collected from the four sides and the bottom of the excavation and analyzed onsite and offsite. All samples results were received, and except for the north side, were below action levels.

The north side confirmation sample failed and additional excavation occurred at this location. Final onsite confirmation samples from this location indicate that the areas are all below WRW action levels. Based on this data, backfill will be permitted. However, additional excavation may be required based on the results of the subsurface soil risk screen and offsite confirmation sample results.

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**Contact Record Prepared by:** Annette Primrose

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### Required Distribution:

M. Aguilar, USEPA  
H. Ainscough, CDPHE  
S. Bell, DOE-RFPO  
J. Berardini, K-H  
B. Birk, DOE-RFPO  
L. Brooks, K-H ESS  
L. Butler, K-H RISS  
G. Carnival, K-H RISS  
N. Castaneda, DOE-RFPO  
C. Deck, K-H Legal  
N. Demos, SSOC  
S. Gunderson, CDPHE  
M. Keating, K-H RISS  
L. Kimmel, USEPA  
D. Kruchek, CDPHE  
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L. Norland, K-H RISS  
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A. Primrose, K-H RISS  
R. Schassburger, DOE-RFPO  
S. Serreze, K-H RISS  
D. Shelton, K-H ESS  
C. Spreng, CDPHE  
S. Surovchak, DOE-RFPO  
J. Walstrom, K-H RISS  
K. Wiemelt, K-H RISS  
C. Zahm, K-H Legal

### Additional Distribution:

K. Maley, K-H RISS

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# Be Air Samplers

## EXPLANATION

Be Sample

## Standard Map Features

- Buildings and other structures
- Demolished buildings and other structures
- Lakes and ponds
- Roads, streets, or other transportation features
- Fences and other barriers
- Topographic Contour (10-foot)
- Perennial roads
- Dirt roads

NOTE: All buildings and structures shown on this map were obtained from aerial photography, maps, and other sources. Buildings and structures shown on this map are not necessarily current. Buildings and structures shown on this map are not necessarily current. Buildings and structures shown on this map are not necessarily current.



Scale = 1:25,000  
1 inch represents approximately 253 feet



Sum Peak Coordinates Projection  
Datum: NAD83

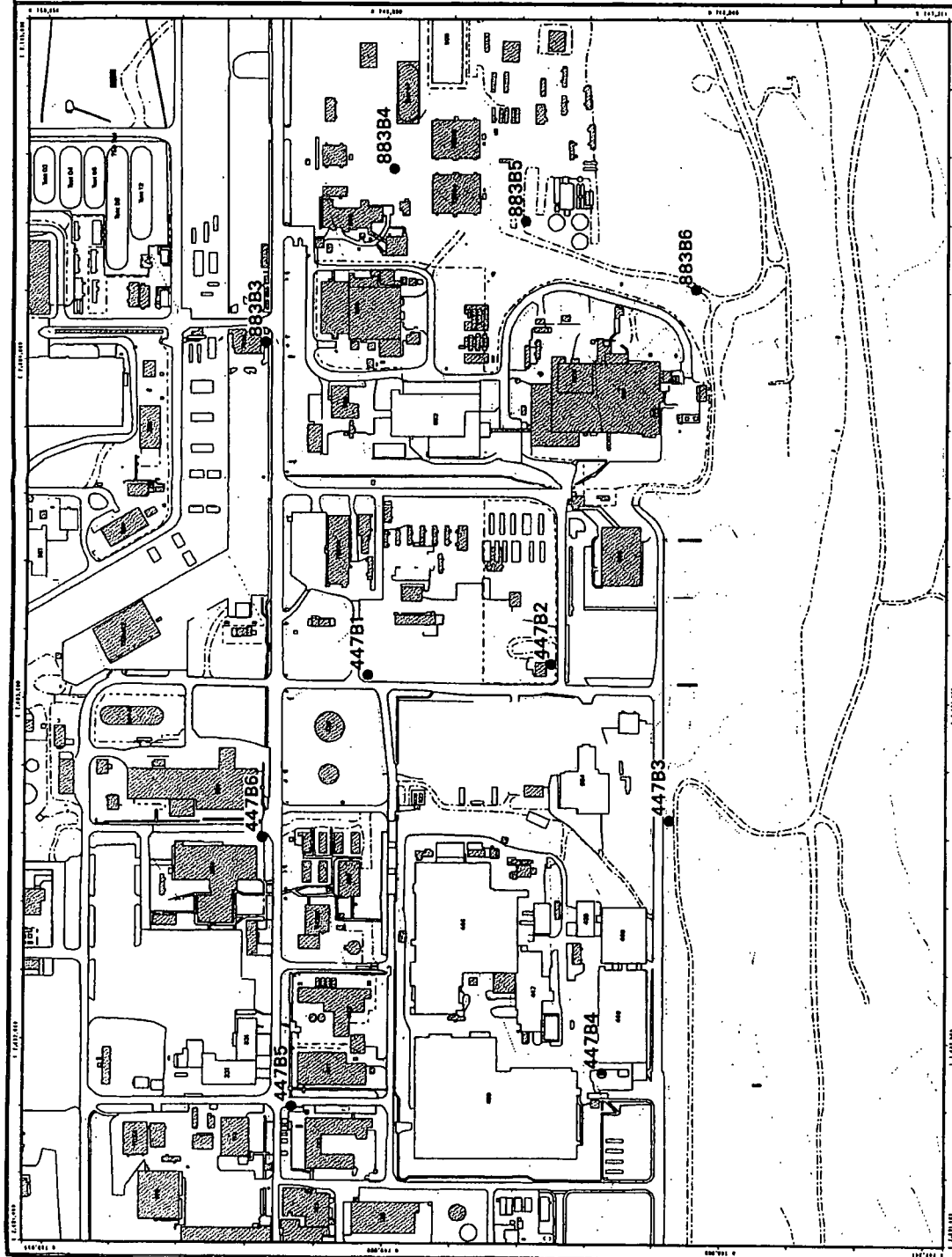
U.S. Department of Energy  
Rocky Flats Environmental Technology Site

Prepared by:

CH-224/HILL

Prepared for:

IGI  
MAGNETIC  
November 02, 2004





# Appendix 1 Article 7

## Remaining UG Utilities for Building 444 Cluster

### EXPLANATION

- Foundation Drain
- Sewer
- DCWF
- Culverts & Storm Drains
- OPWL
- NPWL

NOTE: Hatched symbols represent removed features. \* Color indicates utility type.

### Standard Map Features

- Remaining Structure
- Removed Structure

- The sanitary sewer system piping was removed as shown. All sewer manholes have been removed to at least 4 feet below grade and the remaining lower portions filled with concrete.
- All piping lines, manholes, and other miscellaneous equipment associated with the NPWL have been removed.
- All piping lines, manholes, and other miscellaneous equipment associated with the OPWL have been removed except as shown. Abandoned OPWL lines were grouted.
- All piping lines, manholes, and other miscellaneous equipment associated with the Domestic Water System were removed to 3 feet below grade. Piping lines and equipment greater than 3 feet below grade were abandoned in place.
- All sanitary floor drains were disrupted and filled with grout.



State Plane Coordinate Projection  
Colorado Central Zone (3418)  
Datum: NAD27

U.S. Department of Energy  
Rocky Flats Environmental Technology Site

Prepared By:

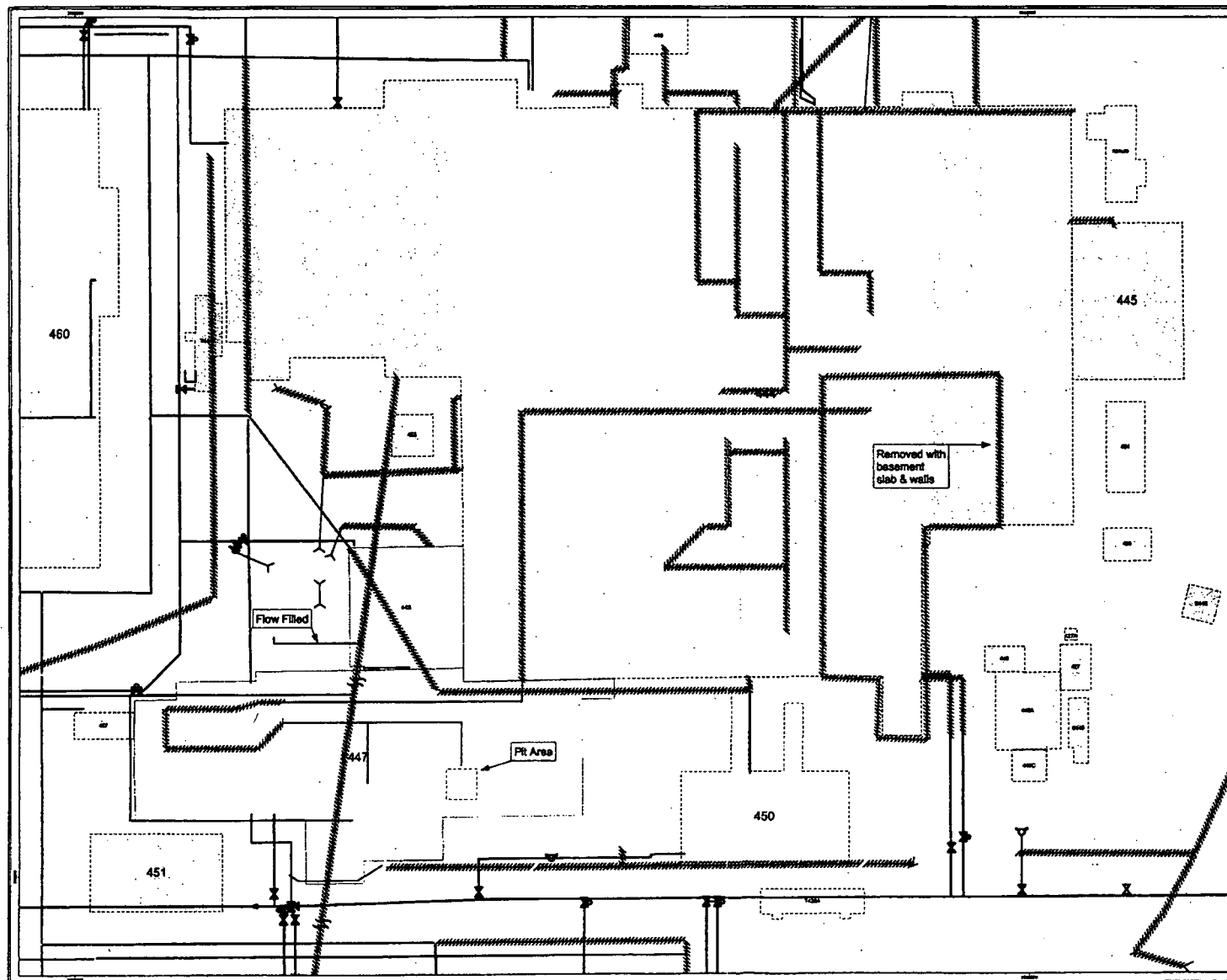


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Prepared For:



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